

AC/DC CURRENT PROBE MR400 & MR500 Series



- MR400 Series has a measurement range of 400AAC/600ADC
- MR500 Series has a measurement range of 1000AAC/1500ADC
- Designed to EN 61010, 600V Cat. III safety standards

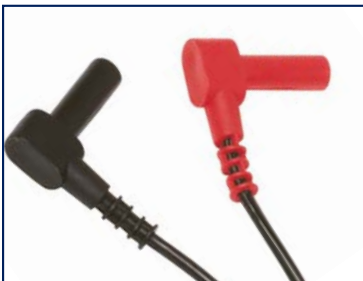


Model MR520 measuring DC current of a DC engine

The AEMC® MR Series AC/DC Probes are professional AC/DC current probes designed to extend current measuring capabilities of DMMs, oscilloscopes and other instruments. They are built to the latest safety and performance standards, including the CE Mark and UL approval. Two different hook-shaped jaws are offered, both permitting the user to “pry” or “hook” onto cables (will accept two 500MCM) or even onto small bus bars.

The MR Series probes use Hall effect technology and measure AC and DC current. The electronics and batteries are self-contained in the handles. The output of the AC/DC probes is 1mV/A and 10mV/A. The MR400 Series measures to 400A_{AC}/600A_{DC} and the MR500 Series to 1000A_{AC}/1500A_{AC}. The MR410/510 are single range with manual zero adjust. The MR411/521 have two ranges and an auto-zero push button (patent pending) for quick DC zeroing.

There is no output filtering — True RMS with DC component measurements are possible. Phase shift is excellent, making the MR Series of current probes well suited for power and power quality applications.



Leads:
Double/reinforced
5 ft (1.5m) lead
with safety
4mm banana plug

FEATURES

- MR400 Series has a measurement range of 400A_{AC}/600A_{DC}
- MR500 Series has a measurement range of 1000A_{AC}/1500A_{DC}
- Two distinct jaw shapes to be used for hooking or prying around the conductor
- Auto-zero push button for MR411, MR461, MR521 & MR561
- Conforms to EN 61010, 600V, Cat. III safety standard
- Low phase shift for power measurements
- mV output signals
- Designed for DMMs, recorders, oscilloscopes, power and harmonic meters
- Designed to EN 61010, 600V Cat. III safety standards

APPLICATIONS

- DC motors
- Batteries
- Automobile engine testing
- Power measuring quality analysis
- Power load monitoring

SPECIFICATIONS

MODELS	MR410	MR411	MR520	MR521
ELECTRICAL				
Measurement Range AC	1 to 400A	0.2 to 40A 0.5 to 400A	1 to 1000A	0.2 to 100A 0.5 to 1000A
Measurement Range DC	1 to 600A	0.4 to 60A 0.5 to 600A	1 to 1500A	0.4 to 150A 0.5 to 1500A
Output Signal Voltage (mV)	1mV/Aac/dc	10mV/Aac/dc 1mV/Aac/dc	1mV/Aac/dc	10mV/Aac/dc 1mV/Aac/dc
Power Source	9V Alkaline battery	9V Alkaline battery	9V Alkaline battery	9V Alkaline battery
Battery Life	Approx. 120 hours	Approx. 50 hours	Approx. 120 hours	Approx. 50 hours
MECHANICAL				
Dimensions	8.8 x 3.82 x 1.73" (224 x 97 x 44mm)	8.8 x 3.82 x 1.73" (224 x 97 x 44mm)	9.31 x 3.82 x 1.73" (236.5 x 97 x 44mm)	9.31 x 3.82 x 1.73" (236.5 x 97 x 44mm)
Weight	15 oz (440g)	15 oz (440g)	16 oz (480g)	16 oz (480g)
Bus Bar	Two 1.2 x 0.4" (31.5 x 10mm)	Two 1.2 x 0.4" (31.5 x 10mm)	One 1.96 x 0.49" (50 x 12.5mm) Two 1.96 x 0.19" (50 x 5mm)	One 1.96 x 0.49" (50 x 12.5mm) Two 1.96 x 0.19" (50 x 5mm)
Maximum Conductor Size Ø Cable	One 1.18" (30mm) Two 0.95" (24mm) Two 500MCM	One 1.18" (30mm) Two 0.95" (24mm) Two 500MCM	One 1.5" (39mm) Two 25mm (0.98")	One 1.5" (39mm) Two 0.98" (25mm)
Bus Bar	Two 1.2 x 0.4" (31.5 x 10mm)	Two 1.2 x 0.4" (31.5 x 10mm)	One 1.96 x 0.49" (50 x 12.5mm) Two 1.96 x 0.19" (50 x 5mm)	One 1.96 x 0.49" (50 x 12.5mm) Two 1.96 x 0.19" (50 x 5mm)
Output Connection	Cable	Cable	Cable	Cable
SAFETY				
Safety Rating	EN 61010-1 @ 2 (indoor use), 600V Cat. III, Pollution Degree: 2	EN 61010-1, 600V Cat. III, Pollution Degree: 2	EN 61010-1 @ 2 (indoor use), 600V Cat. III, Pollution Degree: 2	EN 61010-1, 600V Cat. III, Pollution Degree: 2
CE Mark	Yes	Yes	Yes	Yes

CONSTRUCTION



CONSTRUCTION



Jaw Opening: 1.55" (40mm)
 Conductor Size:
 one 1.6" (42mm) cable max,
 two 0.98" (25mm) cables max,
 two bus bars 1.96 x 0.19" (50 x 5mm)

Protective non-slip guard

Lever for jaw opening/closing

Green light (on when battery voltage $\geq 6.5V$)

Two-position range selection switch

Safety banana plug \varnothing 4mm

Cable, 5 ft (1.5m)

MR500 Series

ORDERING INFORMATION	CATALOG NO.
AC/DC Current Probe Model MR410 (Cable – 1mV/A – 60A max)	Cat. #1200.70
Includes user manual	
AC/DC Current Probe Model MR411 (Cable – 10mV/A – 60A max y 1mV/A – 600A max)	Cat. #1200.68
Includes user manual	
AC/DC Current Probe Model MR520 (Cable – 1mV/A – 600A max)	Cat. #1200.71
Includes user manual	
AC/DC Current Model MR521 (Cable – 10mV/A – 150A max y 1mV/A – 1500A max)	Cat. #1200.69
Includes user manual	
Accessories (Optional)	
Adapter – 4mm Non-insulated for Safety Leads	Cat. #1017.45
Banana (Male) – BNC (Female) Adapter	Cat. #2111.32



Call the AEMC® Instruments Technical Assistance Hotline for immediate consultation with an applications engineer: **(800) 343-1391**

Chauvin Arnoux®, Inc. d.b.a AEMC® Instruments • 200 Foxborough Blvd. • Foxborough, MA 02035 USA • (800) 343-1391 • (508) 698-2115 • Fax (508) 698-2118

Visit our website at www.aemc.com

950.BR-MR SERIES-WEB 01/05 Rev. 02